forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating said semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein roughness and waviness of the surface of the flattened substrate are 5 μm or less, respectively.

8. (New) A method according to claim 7 wherein said laser beam is an excimer laser beam.

9. (New) A method according to claim 7 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

10. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating said semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein a difference in level of the surface of the flattened substrate is at least a focal depth of the laser beam or less.

11. (New) A method according to claim 10 wherein said laser beam is an excimer laser beam.

12. (New) A method according to claim 10 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

13. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

heating said substrate;

flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating said semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein roughness and waviness of the surface of the flattened substrate are 5 μm or less, respectively.

14. (New) A method according to claim 13 wherein said laser beam is an excimer laser beam.

15. (New) A method according to claim 13 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

16. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

heating said substrate;

flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating said semiconductor film with a laser beam having a cross section which is elongated in one direction while moving said substrate with respect to said laser beam,

wherein a difference in level of the surface of the flattened substrate is equal to or less than a focal depth of the laser beam or less.

17. (New) A method according to claim 16 wherein said laser beam is an excimer laser beam.

18. (New) A method according to claim 16 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

19. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

heating the substrate to crystallize said semiconductor film;

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flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating the crystallized semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein roughness and waviness of the surface of the flattened substrate are 5 μm or less, respectively.

20. (New) A method according to claim 19 wherein said laser beam is an excimer laser beam.

21. (New) A method according to claim 19 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

Sub C4

Sub C6

22. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

(cont.) B1

forming a semiconductor film over a substrate having an upper surface and a lower surface, wherein said upper surface is an insulating surface;

heating the substrate to crystallize said semiconductor film;

flattening said substrate by vacuum-sucking said substrate onto a stage having a flat surface in such a manner that said lower surface of said substrate is in contact with said flat surface of the stage; and

irradiating the crystallized semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein a difference in level of the surface of the flattened substrate is at least a focal depth of the laser beam or less.

23. (New) A method according to claim 22 wherein said laser beam is an excimer laser beam.

24. (New) A method according to claim 22 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

25. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an insulating surface;

heating said substrate;

flattening said substrate by cooling; and

irradiating said semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein roughness and waviness of the surface of the flattened substrate are 5 μm or less, respectively.

26. (New) A method according to claim 25 wherein said laser beam is an excimer laser beam.

27. (New) A method according to claim 25 wherein at least a part of the flattened substrate constitutes the liquid crystal display device.

28. (New) A method of manufacturing a liquid crystal display device comprising the steps of:

forming a semiconductor film over a substrate having an insulating surface;

heating said substrate to crystallize said semiconductor film;

flattening said substrate by cooling; and

irradiating the crystallized semiconductor film with a laser beam having a cross section which is elongated in one direction while relatively moving said substrate with respect to said laser beam,

wherein roughness and waviness of the surface of the flattened substrate are 5 μm or less, respectively.

29. (New) A method according to claim 28 wherein said laser beam is an excimer laser beam.